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REMARKS

Election/Restrictions

Restriction to one of the following inventions was required by the Examiner under 35 U.S.C. 121:

I. Claims 1-5 and 9-20, drawn to a method for producing curved thread reinforced tubular structures, classified in class 156, subclass 169.

II. Claims 6-8, drawn to a device for the production of curved thread reinforced tubular structures, classified in class 156, subclass 425.

Applicants elect the claims of Group I and withdraw claims 6-8 from consideration. This election is made with traverse.

In the Claims

Claims 1-5 and 9-20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

All claims have been reviewed and revised where appropriate to address indefinite terminology including but not limited to lack of antecedent basis. To this end, the various axes of elements and of movement have been better defined.

Many of the issues raised were due to translation issues. Most of the indefinite language can be eliminated by consulting Fig. 1 and the corresponding description. For instance, the mandrel of the present invention has an essentially cylindrical shape.

The word used for the mandrel 1 in the German original application is "Dorn" (see page 6, line 14 of the German original). The general meaning of "Dorn" is "thorn." In a mechanical context, it can be a pin or bolt. For the specific application within the context of the present invention, the proper term is "mandrel." However, it is understood that a "Dorn," i.e. a pin or bolt, cannot have a toroidal shape. It has an elongated, e.g.

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cylindrical or conical, shape with a straight center axis. For reference, a copy of "Langenscheidts New College German Dictionary," Completely Revised Edition 1995, is attached which shows the common translation terms of the word "Dorn."

Claims 1-5, 9-11, 13, 14, 17 and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by Grawey (US 3,606,921).

Claims9, 11-14, l9and 20 were rejectedunder35 U.S.C. 102(b)asbeing anticipated by Schlake et al. (US 4,917,318).

Both Grawey and Schlake show mandrels (21 in Grawey, 38 in Schlake) with a toroidal shape (Grawey, col. 5, line 42) or semitoroidal shape (Schlake col. 4, line 39). The mandrels in both references already exhibit the final shape and curvature of the tubular structure being manufactured. In contrast to present invention, Grawey's and Schlake's devices will not produce a tubular structure that changes its curvature after removal from the mandrel. The tube's curvature radius is determined by the mandrel's radius of curvature.

The present invention includes a mandrel with a straight shape, not a curved one. A curvature of the tubular structure being manufactured is only brought about after removing it from the rigid and straight mandrel, when the thread tensions, which vary around the circumference of the tube, will bend the manufactured rubber/thread tube into a curved tube (see page 5, lines 1-7).

Accordingly, Grawey and Schlake do not anticipate or even suggest the present invention as claimed in claim 1 or claim 9. For clarification, the mandrel is now described as "essentially cylindrical" in both claims 1 and 9. This indicates a straight elongated body as opposed to a toroidal or semitoroidal body. It is not meant to define it as a strictly cylindrical shape, hence the qualifier "essentially."

Claims 9, 11, 12, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbauwhede et al. (US 4,119,748).

Verbauwhede et al. deals with a method of reinforcing glass fiber structures. Due to its rigidity, glass fiber, once the structure is shaped, will not change its shape after

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removal from a mandrel, unlike the elastomeric rubber of the present invention. The articles "having any desired form" will thus have to be preshaped on the mandrel in order to manufacture such a shape. It is irrelevant which element of the structure moves, as the examiner correctly states. It is not irrelevant, though, that this reference, just like the two previously discussed references, does not describe or suggest a method to effect a curvature of a tubular structure by using a straight mandrel and varying thread tension, which curvature will not be present until after the tube leaves the mandrel.

Claims 5 and 11 have been canceled due to an apparent duplicity of features.